Remarks/Arguments:

Claims 20-27, presented hereby, are pending.

Claims 1-19 are cancelled, hereby, without prejudice or disclaimer.

Claims 20-27 correspond to original claims 1-8 amended as explained below.

The Office Action (page 3) contains an objection to the specification. As required in the objection, the brief description of the drawings is amended, hereby, to adequately describe Figures 1 and 3. As also required, a replacement sheet of drawings, containing Figures 1a and 1b translated into English, is attached hereto.

The Office Action contains an objection (paragraph bridging pages 3 and 4) to each of original claims 1 and 3. In view of replacement claims 20 and 22, presented hereby, the objection is overcome.

In claim 20 (i.e., amended claim 1) "antibodies" is taken from claim 2 as originally filed and the wording "wherein said epitopes are involved in the syncytial cell-cell fusion of trophoblasts" is taken from claim 6 as originally filed, and page 6, paragraph "d)" of the specification. The three recited options from which the epitopes are selected are taken from the last paragraph at page 6 of the specification. The additional features in step "d)" of claim 20 are supported in the specification, e.g., at page 6, lines 14-15, and page 11, lines 3 to 4. New claim 27 is directed to the production of anti-idiotypic antibodies from antibodies obtained by the process according to claim 20. Claim 27 contains subject matter of original claim 5, Figure 1b, application page 8, second paragraph, and application page 5, second paragraph.

Applicants realized that, by the method of claim 20, specific monoclonal antibodies, which have an inhibiting effect on the syncytial cell-cell fusion, could be obtained by making use of specific combined epitopes in steps a) and d). According to claims 24 and 27, which add further features to the inventive process of claim 20, those specific monoclonal antibodies may further be used to obtain substances which mimic the epitopes. Those substances are limited to low molecular weight substances in claim 24 and antibodies in claim 27.

Non-elected subject matter in claims 4, 5, and 8-19 has been cancelled from the claims hereby. Claims 4, 5, and 8 are amended hereby as claims 23, 24 and 27, respectively, to fall within the scope of the election/restriction.

Claim 2 was rejected under 35 USC 112, first paragraph, for allegedly lacking enablement. Reconsideration is requested in view of replacement of claim 21, presented hereby, in conjunction with the following remarks.

Original claim 2 is directed to single chain antibodies. As helpfully suggested by the Examiner, claim 2 is limited hereby, as claim 21, to antibodies that do bind antigen. Claim 21 is limited to antibodies "having binding capacity to the mammal epitopes." which follows the Examiner's suggestion, as understood by Applicants. Applicants wish to thank the Examiner for kindly suggesting an amendment for overcoming the rejection.

Claims 2, 3, and 7 stand rejected under 35 USC 112, second paragraph, as allegedly being indefinite. Reconsideration is requested in view of the amendments to the claims, presented hereby, taken together with the following remarks.

Claims 2 and 3 are allegedly indefinite for reciting "especially" and "derived." Since neither "especially" nor "derived," is recited in the pending claims, the rejection as applied against claims 2 and 3 is rendered moot.

Claim 7 is allegedly indefinite for reciting the phrase "such as." This phrase is not found in any of the pending claims and, so, this basis for the rejection is overcome.

Claim 7 is also allegedly indefinite in that it recites the language "said mammal species," for which there is allegedly insufficient antecedent basis in claim 1 (on which claim 7 is dependent). The rejection is overcome, in that the language is changed (in claim 26) to "said mammal epitopes," for which there is antecedent basis (in claim 20).

Claim 7 was found indefinite for reciting "pets" and "pests." Neither "pets" nor "pests" is found in any of the pending claims and, so, this basis for the rejection is overcome.

Accordingly, in view of the claim amendments presented, hereby, the rejection under 112, second paragraph, as applied against claim 7 is overcome.

Claims 1-3, 6 and 7 were rejected under 35 USC 102(a) as allegedly being anticipated by the cited Schmitz. The rejection cannot be maintained as Schmitz is not available as prior art against the present claims.

Submitted, herewith, is a verified translation of the §119 priority document (DE 19964046.7), filed 30 December 1999. Accordingly, the §119 priority date of the subject application (30 December 1999) is earlier than the effective date of Schmitz as a reference under 35 USC 102(a), i.e., February 9, 2000, which renders the rejection moot.

Claims 1-3, 6, and 7 were rejected under 35 USC 102(b) as allegedly being anticipated by the cited Hoogenboom "as evidenced by [the cited] Tendler" (Office Action page 13). The rejection cannot be maintained since it relies on the teachings of Tendler, which is not available as prior art against the present claims.

As explained above, the §119 priority date of the subject application is 30 December 1999. Since the §119 priority date is earlier than the effective date (in the year 2000) of Tendler under 102(b), the rejection is a moot issue.

Moreover, Hoogenboom discloses nothing more relevant than the construction of immune libraries from chicken and that immune phage libraries are useful in analyzing natural, humoral responses. There is no teaching or suggestion of a process according to the present claims, in which combined epitopes are used for immunization and selection, and wherein the epitopes are involved in syncytial cell-cell fusion of trophoblasts. The subject matter presently claimed is not anticipated by Hoogenboom.

Claims 1-3 and 7 were rejected under 35 USC 102(e) as allegedly being anticipated by each of US 6,042,833 (Mostov) and US 6,143,559 (Michael). Reconsideration of the rejection over each of the cited references is requested.

The method of the presently claimed invention, which is directed to the preparation of specific monclonal antibodies, is patentably distinct from each of the cited references.

First, the epitopes which are used for immunization in step b), and for selection in step d), are selected from the group of three (what might be labeled) "combined epitopes." Neither reference

teaches or suggests an embodiment in which such combined epitopes play a role. Therefore, the subject matter of the present claims is novel over each of the cited references.

The subject matter presently claimed is novel over Mostov. Mostov does not teach (or suggest) the use of combined epitopes. Moreover, the reference is not concerned with syncytial fusion, let alone syncytial cell-cell fusion.

Michael discloses the production of chicken monoclonal antibodies. At least a part of the immune response may be expressed by phage display, though in most embodiments B cells are isolated and immortalized and selected for antigen reactivity. Michael does not teach (or suggest) use of epitopes involved in syncytial trophoblast fusion, let alone cell-cell fusion. Furthermore, Michael is silent about the use of combined epitopes for immunization or for screening. The epitopes listed in column 3, lines 8 to 43, of Michael clearly do not comprise combined epitopes. A phospholipid is not an epitope useful in the presently claimed invention, which would rather comprise, e.g., a complex of a protein with a phospholipid as a complex epitope. The subject matter presently claimed is, thus, not anticipated by Michael.

Claims 1-3, 6, and 7 were rejected under 35 USC 103(a) as over Michael in view of US 6,300,308B1(Schroit) and *Histochem.Cellbiol., 110*, 495-508 (1998), Medline Abstract (Huppertz). Reconsideration is requested.

Applicants surprisingly found that they could obtain potent inhibitors against the specific process of syncytial cell-cell fusion when preparing antibodies according to the presently claimed

process, in which such combined epitopes are used for immunization and for selection of the obtained antibody library.

Huppertz discloses a scientific study about the growth and regeneration of the syncytiotrophoblast of the human placenta. It is, thus, directed to cell-syncytium growth. The authors only briefly refer to cell-cell fusion on page 495, right column, when noting that the appearance of phosphatidylserine in the outer leaflet is thought to be a signal for both cell fusion and subsequent syncytium formation.

The field of cell-syncytium fusion, as examined by Huppertz, is entirely different from cell-cell fusion. When cell-syncytium fusion occurs, the blastocyst is already implanted into the placenta. Therefore, any approach aiming at inhibiting cell-syncytium fusion would interfere with the already existing pregnancy, resulting in damage to the placenta, and would (as such) relate to the field of abortion. In sharp contrast, the approach of the present claims is the inhibition of the blastocyst, and (as such) relates to the field of contraception.

Though Huppertz discloses concepts for the understanding of syncytial fusion of trophoblasts, the reference does not disclose anything about the physiogenic complexes at the cell surface and their molecular properties. Huppertz's teaching that phosphatidylserine is involved in cell fusion is not new or surprising, since all known fusion processes in the human body involve this molecule.

Furthermore, a combination of Huppertz with any of the other cited references would not have led to the process of the present claims.

Furthermore, still, Schroit does not disclose or suggest a process of the present claims. More precisely, Schroit et al. does not teach or suggest a process in which epitopes against trophoblasts are used, wherein the epitopes used are combined epitopes, as presently claimed.

Request for Return of
Examiner-initialed Form PTO 1449

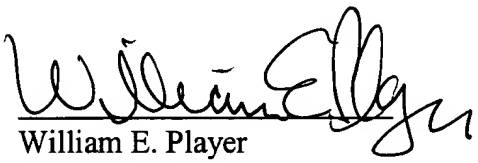
On September 10, 2002, an Information Disclosure Statement, including completed Form PTO 1449, and any requisite copies of references cited, thereon, was filed in the PTO. A copy of the corresponding date-stamped PTO receipt card is attached, hereto. The submitted Form PTO 1449, initialed by the Examiner to show consideration of the references cited thereon, has not been returned with any paper issued by the PTO.

The Examiner is requested to issue the Form PTO 1449 initialed to show consideration the of the cited references on the record. A copy of the Form PTO 1449 is attached, hereto, for the Examiner's convenience.

Favorable action is requested.

Respectfully submitted,

JACOBSON HOLMAN PLLC

By 
William E. Player
Reg. No. 31,409

400 Seventh Street, NW
The Jenifer Building
Washington, D.C. 20004
Tel. (202) 638-6666
Fax (202) 393-5350
Date: July 27, 2004
WEP/jjk
R:\Home\rthomas\2004\JULY\P66238 amd.wpd

Sheet 1 of 1

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

LIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)

Date Submitted to PTO: July 27, 2004

ATTY DOCKET NO.:	SERIAL NO.:
P66238US0	09/750,021

APPLICANT: FRANK et al.

FILING DATE:	GROUP:
December 29, 2000	1632

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

		Hachiro I. YAMANAKA et al., "Chicken Monoclonal Antibody Isolated by a Phage Display System", The Journal of Immunology, 157 (1996), pp. 1156-1162 - XP-002203029
		U. SCHMITZ et al., "Proteome Analysis II: Phage Display of Antibody Libraries from Immunized Chicken is a Tool to Generate Antibodies Against Conserved Human Trophoblast Antigens", Placenta, 20 (1999), pp. A.8 - XP-000870327

EXAMINER	DATE CONSIDERED

**EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.*